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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,369	11/12/2003	John Kaewell	I-2-0118.1US	6823
24374 7590 06/11/2007 VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			EXAMINER BOLOURCHI, NADER	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 06/11/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/706,369

Applicant(s)

KAEWELL, JOHN

Examiner

Nader Bolourchi

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

**Claim Rejections - 35 USC § 102**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless —*

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

2. **Claims 1 and 7 are rejected** under 35 U.S.C. 102(b) as being anticipated by Osborne (US patent No. 4,048,563).

Regarding claim 1, Osborne discloses (figure 1):

- Providing a stable oscillator 13;
- Dividers 11 and 12 dividing stable oscillator 13;
- PRN code generator 16 selecting a phase of plurality of phases from dividers 11 and 12 with PRN code to provide coherent PRN synchronizing code to PRN modulator 17. (Examiner notes that Osborne in Fig. 1 discloses the reference frequency produced by the reference oscillator 13, and associated incremental phase shifter 14 divides at dividers 11 and 12 inherent to provide a system clock having a plurality of system clock phases (column 3, lines 52 – 59), and units 16, 17 inherently provide the step of adjust selecting in accordance with a PN signal in order to provide a synchronized system clock signal, as disclosed in column 4, lines 3 – 17)

Regarding claim 7, the limitations are analyzed in the same manner set forth as claim 1.

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3. **Claims 1 and 7 are also rejected** under 35 U.S.C. 102(b) as being anticipated by Nakamura (US patent # 5,303,258).

Regarding claim 1, Nakamura discloses (figure 11):

- Providing a stable oscillator 21;
- Divider 22 dividing stable oscillator 21;
- PN code generator 24 selecting a phase of plurality of phases from divider 22 with PN code to provide synchronized clock (see abstract, and more information on figure 12).

Regarding claim 7, the limitations are analyzed in the same manner set forth as claim 1.

4. **Claims 1 - 5, and 7 are also rejected** under 35 U.S.C. 102(b) as being anticipated by Bartholomew et al. (US patent No. 5,365,543).

Regarding claim 1, Bartholomew et al. discloses (figure 6):

- Providing a stable oscillator 56;
- Dividing stable oscillator 46 by divider 44-2;
- Selecting a phase of plurality of phases from divider 44-2 with PN code to provide PN synchronizing code.

Regarding claim 2, Bartholomew et al. further discloses (figure 6):

- DIV/64 42-1, Phase Mux's 1 & 2, Multipliers 45-2 & 46-2, DIV/5's 45-3 & 46-3, PN [1] 45-4 & PN [2] 46-4, PN Mux 47, and receiver 52 providing PN phase adjustment of the PN received clock signal (column 13, lines 10 - 23).

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Regarding claim 3, Bartholomew et al. further discloses (figure 6) the step of providing a tracking control signal in accordance with the PN phase adjustment (column 13, lines 31 - 52).

Regarding claim 4, Bartholomew et al. further discloses (figure 6):

- DIV/64 42-1, Phase Mux's 1 & 2, Multipliers 45-2 & 46-2, DIV/5's 45-3 & 46-3, PN [1] 45-4 & PN [2] 46-4, PN Mux 47, and receiver 52 providing the step of adjustably the system clock phase in accordance with the tracking control signal (column 13, lines 10 - 52).

Regarding claim 5, Bartholomew et al. further discloses (figure 6) the multiplier 44-1 for multiplying the high frequency 56 prior to divider 44-2.

Regarding claim 7, the limitations are analyzed in the same manner set forth as claim 1.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

6. **Claim 6 is rejected** under 35 U.S.C. 103(a) as being unpatentable over Bartholomew et al. (US patent No. 5,911,119).

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Regarding claim 6, the limitations of claim 1 are equally applied to this claim. Bartholomew et al. differs from the instant claimed invention that it does not comprise the step of providing the frequency reference signal using a temperature compensated crystal oscillator. However, using a temperature compensated crystal oscillator to provide the frequency signal is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement Bartholomew et al. to use a temperature compensated crystal oscillator for providing a frequency signal.

7. **Claims 2, 3, and 6 are also rejected** under 35 U.S.C. 103(a) as being unpatentable over Nakamura (US patent # 5,303,258), and further in view of Shou et al. (US patent # 6,038,250).

Regarding claim 2, the limitations analyzed in claim 1 from Nakamura (US patent No. 5,308,258) are equally applied to this claim. Nakamura differs from the instant claimed invention that it does not comprise the step of recovering the received PN clock signal by providing PN phase adjustments of the received PN clock signal. However, Shou et al. discloses in figure 3 for providing the step of recovering the received PN clock signal by adjustments (see column 4, lines 28 - 51 and column 5, line 56 to column 6, line 45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement Nakamura into Shou et al. to adjust the PN clock or from the adjustable PN clock signal generator (recovering), a PN code that corresponds to the one (PN) received.

Regarding claim 3, Shou et al. also discloses the step of providing a tracking control signal in accordance with the PN adjustments (see column 5, line 46 to column 6, line 45).

Regarding claim 6, Nakamura differs from the instant claimed invention that it does not comprise the step of providing the frequency reference signal using a temperature compensated crystal oscillator. However, using a temperature compensated crystal oscillator to provide the frequency signal is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement Nakamura to use a temperature compensated crystal oscillator for providing a frequency signal.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mosley, Jr. et al. (U.S. Patent No. 4,530,103) discloses a method and its corresponding apparatus for baseband tracking of a PN code sequence in a spread spectrum receiver.

Ricketts (U.S. Patent No. 4,475,208) discloses the wired spread spectrum data communication system.

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Kato et al. (U.S. Patent No. 5,260,969) discloses a spectrum diffusion communication receiving apparatus.

Zscheile, Jr. et al. (U.S. Patent No. 5,299,229) discloses a high rate - low rate PN code tracking system.

Takahashi et al. (U.S. Patent No. 5,365,543) discloses a transmitting and receiving circuits.

Lennen (U.S. Patent No. 5,815,539) discloses a signal timing synchronizer. Tachita (U.S. Patent No. 5,847,678) discloses GPS receiver.

Shigyo et al. (U.S. Patent No. 6,430,209) discloses a spread spectrum communication receiving apparatus.

McDonough (U.S. Patent No. 6,452,959) discloses a method and its corresponding apparatus for generating data sequences for use in communications.

#### ***Contact Information***

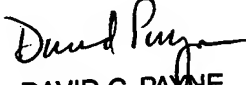
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nader Bolourchi whose telephone number is (571) 272-8064. The examiner can normally be reached on M-F 8:30 to 4:30.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David. C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

Nader Bolourchi  
05/31/2007  
Art Unit 2611

  
DAVID C. PAYNE  
SUPERVISORY PATENT EXAMINER